

**TITLE OF THE INVENTION**

**ALTERNATIVELY SPLICED ISOFORMS OF ASPARTYL PROTEASE 1 (BACE2)**

**ABSTRACT OF THE DISCLOSURE**

5        The present invention features nucleic acids and polypeptides encoding two novel splice variant isoforms of aspartyl protease 1 (BACE2). The polynucleotide sequences of *BACEsv1* and *BACE2sv2* are provided by SEQ ID NO 1 and SEQ ID NO 3, respectively. The amino acid sequences for BAC2sv1 and BACE2sv2 are provided by SEQ ID NO 2 and SEQ ID NO 4, respectively. The present invention also provides methods for using BACE2sv1 and BACE2sv2, 10 polynucleotides and proteins to screen for compounds that bind to BACE2sv1 and BACE2sv2, respectively.